

**OPERATION AND MAINTENANCE PLAN
IRRIGATION PIPELINE
CODE 430DD**

Landowner/Operator _____

Job Location _____ GPS _____

Prepared By _____ Date _____

OPERATION AND MAINTENANCE ITEMS

A properly operated and maintained irrigation pipeline system is an asset to your operation. This system was designed and installed as a permanent solution to irrigation delivery system deficiencies. The estimated life span of the installation is at least 20 years and can be assured and usually increased by carrying out the following recommendations. This checklist is provided for your convenience in order to help you develop a good operation and maintenance plan.

OPERATION CHECKLIST

For a pumped system do this before turning on the pump:

- ☐ Check that all preseason maintenance is complete.
- ☐ Before starting, read and record flow meter totals.
- ☐ Inspect all drains to be sure that drain valves are closed.
- ☐ Inspect all mainline, lateral, and turnout valves. Open the operational turnout. The first and last risers on each line, as well as any riser that is at a high point in the line, should be cracked open to allow air to be released from the system.
- ☐ Open all manual air release valves.
- ☐ Inspect all air-vac valves to see that the airway is open (stem pushed down) and the float ball and seat are in place and undamaged.
- ☐ Visually inspect all pressure relief valves to be sure they are free to operate and have not been adjusted to a higher or lower pressure setting.
- ☐ Before turning on the pump, the valve at the pump should be closed to the point that it is not more than 1/4 open.

Flushing and filling the pipelines:

- ☐ When the pump is turned on, not more than 60 feet of pipe per minute should be filled. .
- ☐ After the pipeline is filled, slowly open the valve to full open. If the flow must be throttled during operation, consideration should be given to making changes in the system. A throttled valve wastes energy.

Operation during the irrigation season:

- ☐ Whenever possible, open the new turnout before closing the old one. Always close valves slowly to prevent water hammer.
- ☐ Inspect the pipeline inlet daily or more often if necessary. Remove trash or debris. Observe flow conditions in the canal and make adjustments necessary to keep the pipeline inlet submerged.
- ☐ Check pressures regularly. A change means there is probably an operational or maintenance problem.
- ☐ Inspect flow meters at least monthly for proper operation.
- ☐ Check pump and valves for noisy operation. Noise is an indication that cavitations may be occurring. Cavitations can greatly reduce the life of the pump and valves.
- ☐ Check that air-vacuum valves are seated and not discharging water.

Other _____
